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EXAMINER
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SHAPIRO, JEFFERY A

ART UNIT	PAPER NUMBER
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3653

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/657,519

Applicant(s)

BOTTAZZI ET AL.

Examiner

Jeffrey A. Shapiro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4,5,7-19,21-37,39-42 and 44-62 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7-19,21-37,39-42 and 44-62 is/are rejected.
- 7) ☒ Claim(s) 43 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/20/06 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 56 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what is meant by the last seven lines of this claim since they appear to repeat the limitations from the first seven lines.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 4, 5, 7-9 and 12-15, 17-19, 22, 23, 25, 31-33, 36-37, 39-42, 47, 49 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oosterveen et al (US 5,468,942) in view of Kumagai et al (US 6,164,546) and further in view of Nambudiri et al (US 6,640,214 B1). Oosterveen discloses the following.

As described in Claims 19, 25, 31, 36, and 47;

- a. portable terminals (see abstract, for example) with means for acquiring data relating to products to be purchased by customers in a shopping center (see col. 1, lines 18-26);
- b. a plurality of cradles (2) for a corresponding plurality of portable terminals to be withdrawn and used by the customers of the shopping center for product data acquisition;
- c. means for identifying each customer enabled to use the portable terminals (15) (see col. 2, lines 51-67 and col. 3, lines 1-7, 16-31 and 40-63);
- d. means for communicating to each identified customer, a corresponding terminal to be withdrawn among said plurality of terminals for the product data acquisition (see col. 3, lines 22-26);
- e. a data control and processing unit (see col. 3, lines 14-16 and 35-63) for example, which describes a computer which controls the system and can be construed to be a processing unit) connected to the

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identifying means (see the card and PIN code in col. 3, lines 10-14) and the communicating means (see col. 3, lines 22-31);

f. said control unit carrying out the identification of the customer by means of said identification means, associating the corresponding terminal to the identified customer and communicating to the identified customer the corresponding terminal to be withdrawn by means of said communicating means (see col. 3, lines 22-31);

g. said plurality of cradles, said identifying means, said communication means, and said control unit are housed in a single housing (note again, rack (2), as shown in figure 1);

h. and wherein said plurality of cradles are housed in a substantially flat portion of said housing, said substantially flat portion being provided in close proximity of the customer identifying means so as to allow access to said plurality of terminals;

(See figure 3 of Oosterveen, which shows a cross-sectional area of a scanner position on rack (2). Note that the flat upper and lower portions indicated by arrows, can be construed to form a substantially flat portion.)

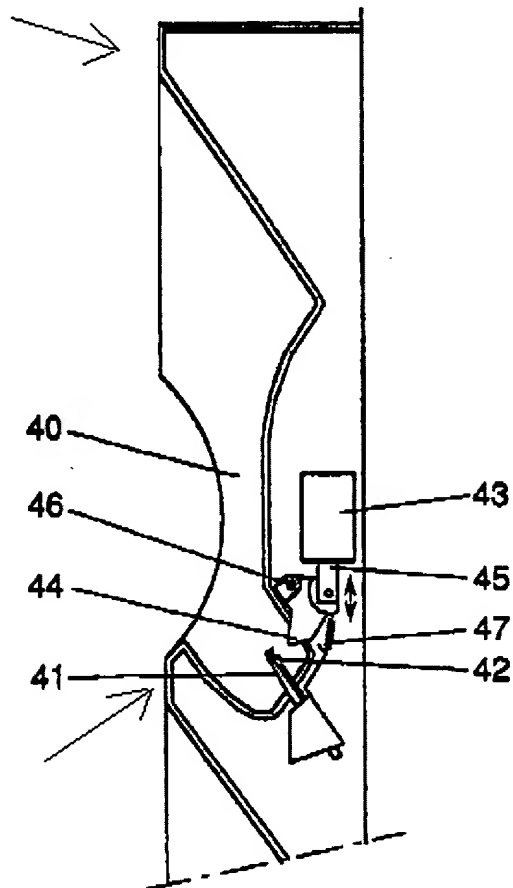


FIG. 3

- i. said portion housing said terminals comprises a box-shaped body including a plurality of compartments constituting said plurality of terminal cradles (note figures 1 and 3 which indicate several terminals and a box-shaped body);

As described in Claims 4 and 41;

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- j. each compartment of said plurality of compartments is adapted to house a terminal of said plurality of terminals and comprises locking/unlocking means (see elements 41-47 in figure 3) of the terminal housed therein (see also col. 4, lines 14-35);

As described in Claim 5;

- k. said box-shaped body comprises first electrical connectors (42) adapted to cooperate with second electrical connectors (42') provided on the terminals (see col. 4, lines 15-25);

As described in Claim 36;

- l. each compartment of said plurality of compartments comprises;
  - i. a first upper aperture for inserting the terminal, wherein a vertical axis and a terminal insertion axis inclined by a predetermined angle with respect to the vertical axis are defined;
  - ii. a second lower service aperture below the first aperture (again, note figure 3, which illustrates a smaller, sub aperture near element (41);
  - iii. means for guiding the terminal into the compartment (note that the sides of the apertures act to guide the terminal into the compartment);

(See figure 3, which illustrates cavity (40) with an axis of insertion which is at an angle with the horizontal axis—again, see discussion of Applicant's Claim

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2, above, noting that regardless of whether or not the axis is vertical or horizontal, the system works the same as Applicant's system.)

As described in Claim 7;

m. said second aperture has a size larger than that of said first aperture (see figure 3 and previous discussion);

As described in Claim 8;

n. each said compartment of said plurality of compartments comprises a terminal support element arranged inside each compartment, substantially away from a projection of the first aperture along the vertical axis (see figure 1, which illustrates various support elements, such as (10));

As described in Claim 9;

o. said terminal support element comprises opposed guiding walls inclined at said predetermined angle with respect to said vertical axis (see previous discussion);

p. one of said walls comprises a support step for contacting a lower end of the terminal (see lower, second aperture, discussed above);

q. the support step being arranged outside the projection of the first aperture along the vertical axis (note that this is how the first and second aperture described above, are arranged);

As described in Claim 12;

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r. the customer identifying means comprises at least any one of the following means;

magnetic card reader, smart card reader, bar code reader, optical receiver, radio or mobile phone receiver, a fingerprint reader, fingerprint or retina detector, a device for entering a numerical code, or a voice detector (see col. 2, lines 61-67 and col. 3, lines 1-7, reciting a card reader);

As described in Claims 13 and 42;

s. the means for communicating to identified customers the terminals to be withdrawn comprises at least any one of the following means;

visual communication means on a display or monitor (18), visual communication means (13 or 18') in the proximity of each cradle of said plurality of cradles, sound or voice communication means, terminal lifting means (41-47), terminal lifting means provided into each cradle of said plurality of cradles; (see elements (41-47 and figure 3.)

20a. each compartment has a terminal lifting mechanism for selectively lifting the terminal allocated to the entitled customer relative to the compartment (again, see figure 3 and elements (41-47);

As described in Claim 15;

*The dispensing device according to Claim 1, further comprising one of the following:*

t. data transmission *means to an optical type terminal;*

u. data transmission *means to a radio type terminal;*

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v. data transmission *means from an optical type terminal*;

w. data transmission *means from a radio type terminal*;

(see col. 3, lines 10-63, noting that optical and radio type terminals are considered to be functional equivalents to each other);

As described in Claims 17 and 40;

x. said compartment comprises at least one sensor for indicating presence and/or correct arrangement of the terminal into the compartment (see figure 3, noting that if the contacts (42 and 42') are not correctly locked, then the system will recognize the connection as being broken or unbroken);

As described in Claims 22-23 or 32;

y. said connection network is a wireless local network;

z. said connection network is a geographic network;

(Note that these are functional equivalents of each other and that the scanners of Oosterveen work wirelessly.)

As described in Claim 37;

aa. a compartment further wall which is opposed to the compartment first wall (see figure 3 of Oosterveen);

As described in Claim 39;

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ab. the support step has a first electrical connector thereon for mating with a second electrical connector on the terminal (see Oosterveen, figure 3, elements 41-47 and contacts (42 and 42'));

As described in Claim 49;

ac. said multifunctional customer interface comprises at least one of the following means: visual communicating means on a display or a monitor; visual communication means in proximity of each cradle of said plurality of cradles (13), sound or voice communication means, terminal lifting means provided in each cradle of said plurality of cradles;

Regarding Claims 1, 19, 36 and 47, Oosterveen does not expressly disclose, but Kumagai discloses a lower discharge aperture in a scanner holder. See Kumagai, figures 6 and 13, element (2), which is shown as having a cut-out portion to accommodate a wire.

Both Oosterveen and Kumagai are considered to be analogous art as they both concern hand-held scanner storage.

Note that it would have been obvious to one of ordinary skill in the art to have removed a portion of material below Oosterveen's lower aperture or any other location.

From Kumagai's figures 6 and 13, one ordinarily skilled in the art would have found it logical and reasonable to remove material from the lower aperture so as to lower material costs by requiring less material for the final holder as well as to allow

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passage of unwanted items so as to keep the holders clean and to allow for accommodation of a wire, antenna or handle of one of Oosterveen's scanners.

Regarding Claim 2, Oosterveen can be construed to describe the following.

As described in Claim 2;

ae. said portion for housing said terminals is substantially horizontal;

Note that it would have been obvious to one of ordinary skill in the art to have located the rack (2) of Oosterveen either vertically or horizontally, and that the system of Oosterveen, even if it is vertical, would still function substantially the same as Applicant's system.

Regarding Claims 14, 18, 33 or 50 Oosterveen can be construed to describe the following.

As described in Claims 14, 18, 33 or 50;

ah. the communicating means provides one of marketing information, promotional information and a discount voucher;

See printer (19) which produces a receipt, which one ordinarily skilled in the art would recognize as being able to be used as a voucher for a discount. For example, note discount programs where after so many receipts are presented, a discount or prize is obtained. Note also that a receipt by itself can be used as a voucher to pick up merchandise, since it has the product identification listed on it.

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6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oosterveen et al (US 5,468,942) in view of Kumagai et al (US 6,164,546) and further in view of Tracy et al (US 6,199,753 B1) and still further in view of Lu (US 6,157,005). Oosterveen and Kumagai disclose the system described above. Oosterveen does not expressly disclose, but Lu discloses a cloth cover (12) with hole (121). See Lu, figure 1, for example.

Regarding Claim 10, Oosterveen does not expressly disclose;

af. said box-shaped body comprises a covering surface provided with a plurality of holes at said first terminal insertion apertures;

Both Oosterveen and Lu are considered to be analogous art as Oosterveen discloses portable user-based record bearing and data collection device dispenser with apertures and Lu discloses a cloth cover with holes to accommodate items protruding from said hole.

At the time of the invention it would have been obvious to have used a cloth cover with holes to accommodate Oosterveen's terminals as they are disposed in said apertures.

The suggestion/motivation for doing so would have been to protect Oosterveen's housing, as is readily apparent to one of ordinary skill in the art.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oosterveen et al (US 5,468,942) in view of Kumagai et al (US 6,164,546) and further in

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view of Tracy et al (US 6,199,753 B1) and still further in view of Ekchian et al(US 4,673,932). Oosterveen and Kumagai disclose the system described above.

Regarding Claim 11, Oosterveen does not expressly disclose, but Ekchian discloses;

ag. means for moving the housing;

See Ekchian, figure 10 and col. 3, lines 5-8, noting that Ekchian's cart is wheeled so as to allow transportation within a retail store.

Both Oosterveen and Ekchian are considered to be analogous art as Oosterveen discloses a data collection device dispenser and Ekchian discloses a cart with wheels.

At the time of the invention it would have been obvious to have installed wheels on Oosterveen's terminal dispenser.

The suggestion/motivation for doing so would have been to make Oosterveen's housing portable, as is readily apparent to one of ordinary skill in the art.

8. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oosterveen et al (US 5,468,942) in view of Kumagai et al (US 6,164,546) and further in view of Tracy et al (US 6,199,753 B1). Oosterveen and Kumagai disclose the system described above. Oosterveen does not expressly disclose, but Tracy discloses a hand-held scanner/terminal used at a point of sale that has means for interfacing with a

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wireless network as well as the internet. See Tracy at col. 1, lines 22-37 and 65-67, col. 2, lines 1-40 and col. 3, lines 30-48.

Both Oosterveen and Tracy are considered to be analogous art as they concern portable user-based record bearing and data collection devices.

At the time of the invention it would have been obvious to have made Oosterveen's terminals operable to interface with a wireless network to upload and download various information to associated devices also connected to said network, including a customer's personal hand-held device.

The suggestion/motivation for doing so would have been to improve Oosterveen's portable terminal system by making it more flexible and versatile. See, for example, Tracy at col. 1, lines 63 and 64.

9. Claims 16, 28 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oosterveen et al (US 5,468,942) in view of Kumagai et al (US 6,164,546), and further in view of Ziarno. Oosterveen discloses the system as described above. Oosterveen does not expressly disclose, but Ziarno discloses the following.

As described in Claim 16;

ai. said housing comprises a charge/discharge circuit for batteries of the terminals (7778);

As described in Claims 28 and 34;

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- aj. a means to charge an amount to be paid directly to a bank account of the customer (note debit card (150) in col. 17, lines 22-26);
- ak. said means for charging the amount to be paid is controlled by the terminal (note that tallier routine (S480) is run by the processor of the system);

Both Oosterveen and Ziarno are considered to be analogous art as they concern portable user-based record bearing and data collection devices.

At the time of the invention it would have been obvious to have used a charge/discharge circuit, which charges the portable scanner terminal as it is docked in its rack location, in the system of Oosterveen.

It also would have been obvious to charge the total amount of items to a bank account through the scanner terminal.

The suggestion/motivation for including a charge/discharge circuit would have been to recharge the terminals.

The suggestion/motivation for charging the total amount of items to a particular bank account through the scanner terminal would have been because one ordinarily skilled in the art would recognize that such a capability would increase throughput of sales by making it easier for a customer to charge the items scanned by the scanner.

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10. Claims 21, 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oosterveen et al (US 5,468,942) in view of Kumagai et al (US 6,164,546), and further in view of Van Solt (US 5,397,882). Oosterveen discloses the following.

As described in Claims 21 and 26;

al. said control station is in remote position with respect to said at least one terminal dispenser (see figures 1, which illustrates computer and control station (14-18);

As described in Claim 24;

am. means for downloading the product data acquired through the terminals (Oosterveen's computer);

Oosterveen does not expressly disclose, but Van solt discloses the following.

As described in Claims 21 and 26;

an. said means for downloading the product data is provided in remote position with respect to the terminal dispenser;

(Note that the product data is worked with and downloaded remotely by the scanner. See Van Solt, incorporated by reference in Oosterveen at col. 1, lines 14-17, at figure 2, which illustrates a scanner (10) with memory (16), which is described in col. 3, lines 1-25);

As described in Claim 24;

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ao. means for computing, as a function of the acquired data, an amount to be paid (see Van Solt, col. 3, lines 1-25, which tallies a number of product prices of products chosen);

Both Oosterveen and Van Solt are considered to be analogous art because they both concern hand-held data acquisition devices.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have download product data remotely with respect to the terminal dispenser and to compute an amount to be paid.

The suggestion/motivation would have been to allow customers to use the terminal to scan items throughout the store and to compute the final total of items the customer has bought.

11. Claims 29, 30, 44-46, 48, 51, 53, 55, 57, 59, 61 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oosterveen et al (US 5,468,942) in view of Kumagai et al (US 6,164,546), and further in view of Nambudiri et al (US 6,640,214 B1). Oosterveen and Kumagai discloses the system as described above. Oosterveen does not expressly disclose, but Nambudiri discloses the following.

As described in Claim 29;

ap. wherein at least a portion of the terminals used for acquiring the product data is dispensed to the customers for personal use (see

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Nambudiri, figure 10, which illustrates the PDA-type scanning apparatus which can be used for personal use such as reviewing personal schedules);

As described in Claims 30 and 44-46;

aq. wherein at least a portion of the terminals used for acquiring the product data is a code reading device provided with an interface for the connection with a personal terminal belonging to the customers (note that it would have been obvious to one ordinarily skilled in the art to have used PDA accessories owned by the user to interface with the code reading device);

As described in Claim 48;

ar. said multifunctional customer interface is based on multimedia technology;

As described in Claims 51, 53, 55, 57, 59, 61 and 62,

as. Said portion for housing said terminals comprises a body including said plurality of compartments, and wherein each of said compartments extends longitudinally along a direction inclined by a predetermined angle with respect to said flat portion.

(See Nambudiri, figure 6, which illustrates a flat portion having compartments which extend into the flat portion along an included direction disposed at an angle to said flat portion.)

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Both Oosterveen and Nambudiri are considered to be analogous art because they both concern hand-held data acquisition devices.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have used a PDA-based bar code reading device of Nambudiri in the system of Oosterveen.

The suggestion/motivation would have been to enable home data transfer and home as well as in-store shopping. See Nambudiri abstract and col. 2, lines 46-49

Regarding Claims 51, 53, 55, 57, 59, 61 and 62, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have placed the compartments at a particular angle. One ordinarily skilled would recognized from figure 20, for example, that by angling the individual device compartments, the devices disposed therein would be presented to customers more ergonomically, so as to more easily precipitate their use. See also Nambudiri, col. 16, lines 60-62, which states that the cradle (1000) of figure 15 is intended to be "adaptable for use in shopping, warehousing, health care, service centers, and packaging/trucking establishments." Col. 5, lines 1-2 describe that the cradle structure of figure 20 is another configuration of that shown in figure 15.

Regarding Dependent Claims 52, 54, 56, 58 and 60, that concern limitations concerning an "upper aperture, lower discharge aperture, and means for guiding the terminal into the compartments", note that Oosterveen discloses these features as discussed with regards to Claim 36, above, at paragraph "I".

***Allowable Subject Matter***

12. Claim 43 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

13. Applicant's arguments filed 1/20/06 have been fully considered but they are not persuasive. Applicant asserts that the addition of the limitations "same and single substantially flat portion" to the independent claims overcomes Oosterveen's disclosure. However, this flat portion of both Applicant's and Oosterveen's are both flat portions interrupted by the compartments. Further, the limitations "substantially" also opens the door to the interpretation of a flat surface that is interrupted. Also note that the fact that Oosterveen has compartments on two sides of a column is immaterial to the limitations of the independent claims because Oosterveen's apparatus has at least one side that is substantially flat. For example, the opposing side could also be left empty, in which case there is only one side usable, thereby meeting the claims.

Kumagai is still considered to be combinable and usable with Oosterveen because one ordinarily skilled in the art would look to Kumagai's figures and recognize that removing a portion of the bottom of each compartment would keep dust from collecting in the bottom of each compartment, and also would save on material used to make said compartments.

Regarding Claim 35, note that it has been described in detail at section 6, above. New Claims 51-62 have been treated as described above.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey A. Shapiro whose telephone number is (571)272-6943. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene O. Crawford can be reached on (571)272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffrey A. Shapiro  
Examiner  
Art Unit 3653

April 2, 2006



GENE O. CRAWFORD  
SUPERVISORY PATENT EXAMINER